

**Anti-Nestin Antibody**

**Our Anti-Nestin primary antibody from PhosphoSolutions is mouse monoclonal. It detects human, mouse, Catalog # AN1463**

**Specification**

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**Anti-Nestin Antibody - Product Information**

Application	WB, IHC
Primary Accession	<a href="#">P48681</a>
Reactivity	Bovine
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	177439

**Anti-Nestin Antibody - Additional Information**

Gene ID **10763**

**Other Names**

ESTM 46 antibody, FLJ 21841 antibody, FLJ21841 antibody, Intermediate filament protein antibody, Nbla00170 antibody, nes antibody, NEST\_HUMAN antibody, Nestin antibody

**Target/Specificity**

Nestin is a member of the class IV intermediate filament protein family which is expressed in neuronal stem cells (Lendahl et al., 1990). Nestin was originally identified as a result of the production of a series of monoclonal antibodies directed against epitopes expressed on formalin fixed embryo day 15 rat spinal cord (Hockfield et al., 1985)). One of these antibodies, called Rat 401, stained fibrous profiles in the developing nervous system, but not in the mature nervous system. By screening bacteriophage expression libraries with Rat 401, Lendahl et al. were able to isolate a cDNA encoding the protein to which Rat 401 antibody bound. The protein proved to be an unusual member of the intermediate filament family, containing an alpha-helical region homologous to that found in keratin and neurofilament subunits.

**Dilution**

WB~~1:1000  
IHC~~1:100~500

**Format**

Protein G Purified

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Anti-Nestin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Shipping**

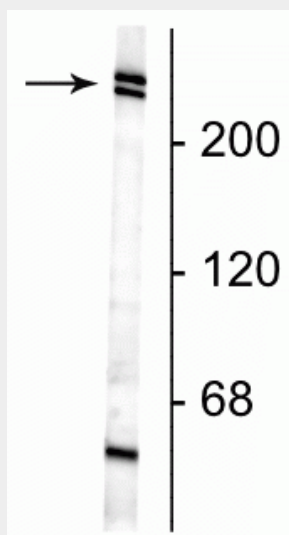
Blue Ice

## Anti-Nestin Antibody - Protocols

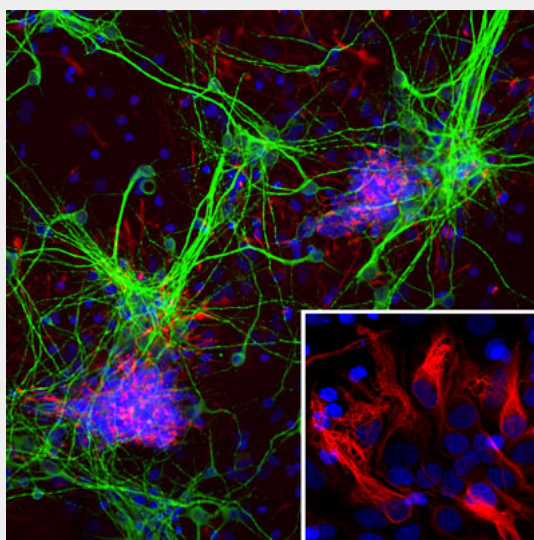
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## Anti-Nestin Antibody - Images

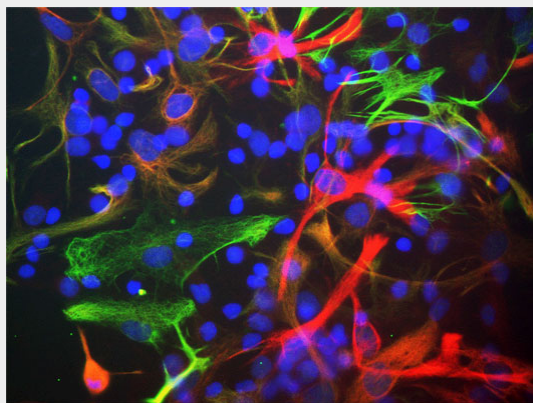


Western blot of neonatal rat brain lysate showing specific immunolabeling of the ~220-240 kDa nestin doublet.

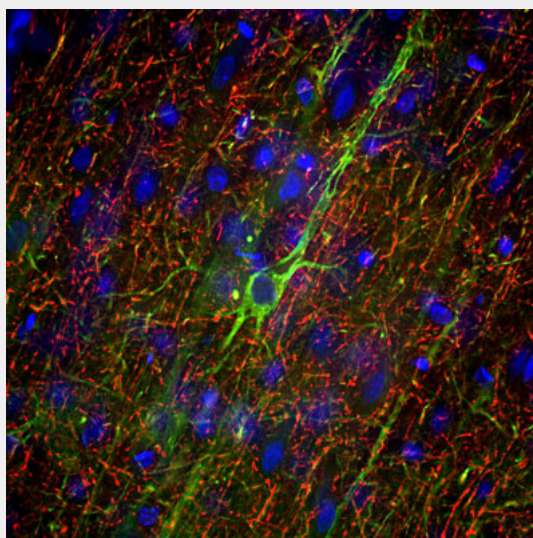


Immunostaining of cultured E20 rat cortical neurons and glia stained with anti-nestin antibody (cat. 1435-NES, red, 1:500) and anti-MAP2 antibody (cat. 1100-MAP2, green, 1:500). The blue is

Hoechst staining for nuclear DNA. The nestin antibody labels developing astrocytes and neuronal stem cells in a clearly filamentous fashion, while the MAP2 antibody stains dendrites and perikarya of mature neurons.



Immunostaining of cultured neonatal rat neurons and glia stained with anti-nestin antibody (cat. 1435-NES, red, 1:500) and anti-vimentin antibody (cat. 2105-VIM, green, 1:500). The blue is Hoechst staining for nuclear DNA. Astrocytes and neuronal stem cells stain strongly and specifically in a clearly filamentous fashion with the anti-Nestin antibody. The presence of Nestin indicates that the cells are developing astrocytes, neuroblasts or undifferentiated neural stem cells.



### Anti-Nestin Antibody - Background

Nestin is a member of the class IV intermediate filament protein family which is expressed in neuronal stem cells (Lendahl et al., 1990). Nestin was originally identified as a result of the production of a series of monoclonal antibodies directed against epitopes expressed on formalin fixed embryo day 15 rat spinal cord (Hockfield et al., 1985)). One of these antibodies, called Rat 401, stained fibrous profiles in the developing nervous system, but not in the mature nervous system. By screening bacteriophage expression libraries with Rat 401, Lendahl et al. were able to isolate a cDNA encoding the protein to which Rat 401 antibody bound. The protein proved to be an unusual member of the intermediate filament family, containing an alpha-helical region homologous to that found in keratin and neurofilament subunits.